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1997 Agreement (Periodical Technical Inspections):
Establishment of new Rules annexed to the 1997 Agreement

Proposal for a new UN Rule [No. 3] on Periodical Technical Inspections of motor vehicles using Compressed Natural Gas (CNG), Liqufied Petroleum Gas (LPG) and/or Liquefied Natural Gas (LNG) in their propulsion system

Submitted by the Informal Working Group on Periodic Technical Inspection*

The text reproduced below was prepared by the experts of the Informal Working Group (IWG) on Periodic Technical Inspection (PTI). It is based on ECE/TRANS/WP.29/2017/134 as amended by informal document WP.29-173-12. The World Forum for the Harmonization of of Vehicle Regulations (WP.29) may wish to decide to submitted it to the Administrative Committee of the 1997 Agreement (AC.4) for concideration and vote at its June 2018 session.

* In accordance with the programme of work of the Inland Transport Committee for 2018–2019 (ECE/TRANS/274, para. 123 and ECE/TRANS/2018/21/Add.1, cluster 3.1), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

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Rule No. [3]

on uniform provisions for periodical technical inspections of motor vehicles using compressed natural gas (CNG), Liqufied Petroleum Gas (LPG) and/or liquefied natural gas (LNG) in their propulsion system with regard their roadworthiness

Contents

		Page
1.	Scope	3
2.	Definitions	3
3.	Periodicity of technical inspections	4
4.	Technical inspection	4
5.	Inspection requirements	4
6.	Methods of inspection	4
7.	Main reasons for rejection and assessment of defects	4
8.	Names and addresses	5
Annex		
1	Minimum inspection requirements	6

1. Scope

1.1. For the purpose of Article 1 of the Agreement concerning the adoption of uniform conditions for periodical technical inspections of wheeled vehicles and the reciprocal recognition of such inspections, the items to be inspected are related to safety requirements of motor vehicles using compressed natural gas (CNG), Liqufied Petroleum Gas (LPG) and/or liquefied natural gas (LNG) in their propulsion system;

1.2. Wheeled vehicles as defined in paragraph 2.4 used in international transports shall satisfy the requirements set out below when they are fitted with LPG, LNG or CNG engines according to UN Regulations Nos. 67, 110, 115 or 143;

1.3. Contracting Parties may decide to extend the requirement of paragraph 1.2 above also to vehicles used in domestic transport.

2. Definitions

For the purpose of this Rule,

2.1. "*Agreement*" means the 1997 Vienna Agreement concerning the adoption of uniform conditions for periodical technical inspections of wheeled vehicles and the reciprocal recognition of such inspections;

2.2. "*International Technical Inspection Certificate*" means a certificate about the first registration after manufacture and the periodical technical inspections of wheeled vehicles in compliance with the provisions of Article 1 and Appendix 2 of the Agreement (see paragraph 2.1. above);

2.3. "*Periodical Technical Inspection*" means a periodical administrative uniform procedure by which the authorized technical Inspection Centres responsible for conducting the inspection tests declare, after carrying out the required verifications, that the wheeled vehicle submitted conforms to the requirements of this Rule;

2.4. "*Wheeled vehicle*" means motor vehicles of categories M_1, M_2, M_3, N_1, N_2 and N_3, as specified in Consolidated Resolution on the Construction of Vehicles (RE.3) (TRANS/WP.29/78/Rev.6, as amended), used in international transport;

2.5. "*Verification*" means the proof of compliance with the requirements set out in the annex to this Rule through tests and checks carried out using techniques and equipment currently available, and without the use of tools to dismantle or remove any part of the vehicle;

2.6. "*1958 Geneva Agreement*" means the Agreement concerning the adoption of uniform technical prescriptions for wheeled vehicles, equipment and parts which can be fitted and/or used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions, done at Geneva on 20 March 1958 and amended as of 16 October 1995;

2.7. "*Regulation*" means a Regulation annexed to the 1958 Geneva Agreement.

2.8. "*Inappropriate repair or modification*" means a repair or modification that adversely affects the road safety of the vehicle.

3. Periodicity of technical inspections

Vehicle categories	*Maximum inspection intervals*
Passenger-carrying motor vehicles: M_1, except taxis and ambulances Goods vehicles: N_1	Four years after the first entry into service of the first registration and every two years thereafter
[Taxis and ambulances] Passenger-carrying motor vehicles: M_2 above 3,500 kg and M_3 Goods vehicles: N_2 and N_3:	One year after the first registration (or if the vehicle is not required to be registered, date of first use) and annually thereafter

4. Technical inspection

Vehicles to which these provisions apply must undergo a periodic technical inspection in accordance with Annex 1 hereafter together with the inspection defined in Rule 1 and Rule 2 annexed to the 1997 Agreement.

Following verification, the International Technical Inspection Certificate shall confirm the compliance with at least the provisions of this annex.

5. Inspection requirements

The inspection shall cover at least the items listed below, provided they are installed in the vehicle.

6. Methods of inspection

The method of inspection set out in the annex shall be the minimum requirement. Where a method of inspection is given as visual, it means that in addition to looking at the items, the inspector can also handle them, evaluate noise, etc.

7. Main reasons for rejection and assessment of defects

Recommendations for the main reasons for rejection and the assessment of defects are also given in the annex. The three criteria for assessment of defects are defined as follows.

7.1. "*Minor defects*" (MiD) are technical defects that have no significant effect on the safety of the vehicle and other minor non-compliances. The vehicle does not have to be re-examined as it can reasonably be expected that the detected defects will be rectified without delay.

7.2. "*Major defects*" (MaD) are defects that may prejudice the safety of the vehicle and/or put other road users at risk and other more significant non-compliances. Further use of the vehicle on the road without repair of the

detected defects is not allowed although it still may be driven to a place for repair and afterwards to a specified location for the repair to be checked.

7.3. "*Dangerous defects*" (DD) are defects that constitute a direct and immediate risk to road safety such that the vehicle should not be used on the road under any circumstances.

7.4. A vehicle having defects falling into more than one defect group should be classified according to the most serious defect. A vehicle showing several defects of the same group can be classified in the next more serious group if their combined effect makes the vehicle more dangerous.

8. Names and addresses

The Contracting Parties to the Agreement applying this Rule shall communicate to the United Nations Secretariat basic information on administrative authorities responsible for supervising the inspection tests and issuing the International Technical Inspection Certificates.

Annex 1

Minimum inspection requirements

Item	*Method*	*Main Reasons for Rejection*	*Defect Assessment*		
			MiD	MaD	DD
1. Legal requirements of the gas installation	Visual inspection and checking of the appropriate documents	The installation is not approved according to UN Regulations Nos. 67, 110, 115 or 143 or equivalent		X	
2.1. Fuel control command, if present	Visual inspection and by operation	(a) Operation not possible		X	
		(b) Not clear marking that may confuse the driver about the fuel in use		X	
2.2. Ventilation housing, including its ventilation pipes	Visual inspection with the vehicle over a pit or on a hoist when appropriate	(a) Insecure or not adequately secured		X	
		(b) Insecure or not adequately secured with immediate risk of detachment, gas leakage or fire			X
		(c) Components missing, damaged, corroded or not according to the requirements		X	
		(d) Components missing, damaged, corroded or not according to the requirements with immediate risk of detachment, gas leakage or fire			X
		(e) Blocked ventilation pipes			X
2.3. Tank level gauge	Visual inspection	(a) Limit of 80% of the tank capacity not readable (only LPG)		X	
2.4. Other components of the gas filling system: valves, pipes, injectors	Visual inspection with the vehicle over a pit or on a hoist, including inside the engine compartment, passengers and luggage compartments when appropriated.	(a) Insecure or not adequately secured		X	
		(b) Insecure or not adequately secured with immediate risk of detachment, gas leakage or fire			X
		(c) Components missing, damaged, corroded or not according to the requirements		X	
		(d) Components missing, damaged, corroded or not according to the requirements1 with immediate risk of detachment, gas leakage or fire			X
		(e) Discharge valves with blocked discharge holes			X
		(f) Pipes without an appropriate protection when going through a body panel		X	
2.5. Electronic control unit	Visual inspection	(a) Warning device malfunctioning			X
		(b) Warning device shows system malfunction			X

Item	*Method*	*Main Reasons for Rejection*	*Defect Assessment*		
			MiD	MaD	DD
2.6. Leakage	Inspection with the vehicle over a pit or on a hoist, including inside the engine compartment, passengers and luggage compartments when appropriated. Use of leak detecting devices with the engine both running with gas and switched off,	Presence of gas			X
3. Marking	Visual inspection	(a) Marking and data plate or component marking not in accordance with the requirements		X	